

Bike Rental Program Peddles Smart Cards

In France, people use RFID-enabled prepaid cards to rent bicycles from 175 locations across Lyon and its suburbs.

By Jonathan Collins

Nov. 30, 2005—Since 2000, residents in Lyon, France, have been able to use their Técély RFID-enabled transit passes to pay bus, tramway and Metro fares. Now those same prepaid smart cards can be used to rent bikes from 175 locations across the city and its suburbs. More than 2,000 rental bicycles are available to be leased and returned across a dense network of bicycle racks placed every 300 meters or so, using a Técély pass or specially created prepaid smart cards.

The city's bike-rental program—which is called vélo'v—was launched in May, and the company behind its deployment says the bikes are already being well used. "It's a big success because 30,000 persons use it, and each bike is rented 10 to 12 times per day. The system isn't expected to be profitable. The aim is not to make money, but to promote the use of the bike in the city," says Agathe Albertini, communications director at outdoor advertising company JCDecaux, based in Paris.

JCDecaux designed, deployed, tested and paid for the entire bicycle-rental application, which it has dubbed CycleCity. The company says others French cities, including Marseilles and Paris, are interested in implementing the CycleCity system; JCDecaux would install the system and all related equipment in return for contracts related to advertising space in each city. "We provide bikes in exchange for the right to rent advertisement space on bus shelters, billboards and so on," Albertini explains.

In Lyon, customers can use either their existing Técély travel pass or a vélo'v RFID card to gain access to a specially designed rental bike. A long-term vélo'v card (valid for one year) in the form of a plastic smartcard is available by mail and requires proof of residence and an initial payment to credit to the card. A short-term vélo'v card (valid for seven days) in the form of a paper smart card can be purchased using a credit card at travel stations kiosks around Lyon.

For vélo'v cards users, the cycle rental is free for the first 30 minutes, €0.50 for the next 1 1/2 hours and €1 or €2 for each additional hour. For Técély travel pass holders, the cycle rental is free for the first hour, €0.50 for the second hour and €1 for each additional hour, up to a limit of 24 hours.

Ever since the Técély system was first deployed in Lyon, ASK, a contactless card and interrogator (reader) developer based in Sophia-Antipolis, France, has been providing contactless Técély transit passes for the city. Now the company is also supplying the new vélo'v cards. Like the Técély pass, the annual plastic vélo'v card uses ASK's 576-bit GTML card, operating at 13.56 MHz. The new seven-day paper card uses the company's 256-bit C.ticket, also operating at 13.56 MHz.

In addition to supplying the cards, ASK developed the ticket-dispensing machine that issues the seven-day vélo'v paper smart cards. When a customer uses the machine to buy a pass or add credit to a vélo'v or Técély smart card, he or she must go to a kiosk to swipe the card. The kiosk will provide a code number and the

number of the bike rack for the bike issued. The customer then enters that code number to select that bike and unlock it from its rack.

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